



# MY GARBAGE

## Module 1

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#### An Exploration of Solid Waste

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## Master Materials List

Student workbooks are used for every lesson. In nearly every lesson the white board and dry erase markers are used. Should you be inclined, transparencies can be made and used on an overhead projector with water based markers.

1	<u>Just a Dream</u> by Chris Van Allsburg
1	<u>The Dumpster Diver</u> by Janet S. Wong
14	2L plastic soda bottles (the same bottles will be used for lessons 2 & 3) Remove the labels.
1	X-Acto knife
1	Pair nylon hose
1	Permanent marker
28	Cotton balls
14	Cups shredded paper
28	Cups soil
14	Rubber bands
14	Cups water
1	Measuring cup
7	Reusable grocery bags
100	One gallon Zip-Lock bags (some of these can be reused)
7	Cups small aquarium gravel
1	Large block of modeling clay
1	Plastic trash bag
2	Square feet of nylon deck shade fabric (geotextile fabric)
7	Plastic straws
1	Roll paper towels
2	Large measuring bowls
1	Large bag potato chips (20oz)
20	Small bags potato chips (equal weight to the large bag)
10	Sandwich sized zip-lock baggies
10	Plastic reusable food containers
30	Pieces printer paper
30	Sets colored pencils / crayons
30	Magazines
30	Pieces 11 X 17 paper
30	Glue sticks
30	Scissors (student)



## Nevada Standard Alignment

Lesson	Title	Topic	<u>Nevada</u> Science	<u>Nevada</u> Language Arts	<u>Nevada</u> Geography	<u>Nevada</u> Mathematics
1	Just a Dream	Introduction	N.5.B.2	2.5.1, 2.5.2, 2.5.3, 3.5.9, 7.5.1, 7.5.2, 7.5.5, 8.5.1, 8.5.2, 8.5.4	2.5.4, 5.5.1, 5.5.3, 5.5.4, 6.5.4	n/a
2	It's the Old Style	Landfills	N.5.A.6, N.5.B.2, E.5.A.4, E.5.C.3, E.5.C.5, L.5.C.2, L.5.C.3, L.5.C.4	7.5.1, 7.5.2, 7.5.3, 7.5.5, 8.5.1, 8.5.2, 8.5.4	2.5.4, 3.5.3, 3.5.5, 5.5.1, 5.5.3, 5.5.4, 6.5.4	1.5.8, 3.5.1
3	My Landfill is Sanitary	Landfills – Sanitary	N.5.A.6, N.5.B.2, E.5.A.4, E.5.C.3, E.5.C.5, L.5.C.2, L.5.C.3, L.5.C.4	7.5.1, 7.5.2, 7.5.3, 7.5.5, 8.5.1, 8.5.2, 8.5.4	2.5.4, 3.5.3, 3.5.5, 5.5.1, 5.5.3, 5.5.4, 6.5.4	n/a
4	How Long Does Trash Last?	Waste Decomposition	N.5.A, N.5.A.1, N.5.A.2, N.5.A.3, N.5.B.2, N.5.B.3, L.5.C.2, L.5.C.3, L.5.C.4	7.5.1, 7.5.2, 7.5.3, 7.5.5, 8.5.1, 8.5.2, 8.5.4	2.5.4, 3.5.3, 3.5.5, 5.5.1, 5.5.3, 5.5.4, 6.5.4	5.5.1
5	Potato Chip Dilemma	Waste Reduction	N.5.A.3, N.5.B.2, L.5.C.3	7.5.1, 7.5.2, 7.5.3, 7.5.5, 8.5.1, 8.5.2, 8.5.4	2.5.4, 4.5.6, 5.5.1, 5.5.3, 5.5.4, 6.5.4	n/a
6	Play It Again, Sam	Material Re-Use	N.5.B.2	4.5.7, 5.5.1, 5.5.3, 5.5.4, 5.5.5, 5.5.7, 6.5.7, 7.5.1, 7.5.2, 7.5.3, 7.5.5, 8.5.1, 8.5.2, 8.5.4	2.5.4, 4.5.6	n/a
7	Warhol Waste	Assessment	Assessment	Assessment	Assessment	Assessment
8	Warhol Waste (part 2)	Assessment	Assessment	Assessment	Assessment	Assessment



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### References

#### Lesson 1 – Just a Dream

Van Allsburg, Chris. (1990). *Just a Dream*. New York: Houghton Mifflin.

Houghton Mifflin Company. (2008). *A Teacher's Guide: Just a Dream by Chris Van Allsburg*. Retrieved April 9, 2008, from <http://www.houghtonmifflinbooks.com/features/thepolarexpress/tg/dream.shtml>

White, Marilyn. (2008). "We have met the enemy... and he is us.". Retrieved April 9, 2008, from [http://www.igopogo.com/we\\_have\\_met.htm](http://www.igopogo.com/we_have_met.htm)

#### Lesson 2 – It's the Old Style

Nevada Division of Environmental Protection. (2007). *State of Nevada Solid Waste Management Plan 2007*. Retrieved May 28, 2008 from <http://ndep.nv.gov/bwm/swmp/swp06.htm#sec2.5>

The Nevada State Demographer's Office. (2007). *Nevada County Population Estimates July 1, 1986 to July 1, 2007 Includes Cities and Towns*. Retrieved May 28, 2008 from [http://www.nsbdc.org/what/data\\_statistics/demographer/pubs/docs/Popul\\_of\\_Nevadas\\_Counties\\_and\\_Incorp\\_cities\\_2007\\_Time\\_Series\\_Email\\_021508.pdf](http://www.nsbdc.org/what/data_statistics/demographer/pubs/docs/Popul_of_Nevadas_Counties_and_Incorp_cities_2007_Time_Series_Email_021508.pdf)

Oregon Department of Environmental Quality. (2001). *Lesson 05: Making A Model Landfill*. Retrieved May 28, 2008 from <http://www.deq.state.or.us/lq/pubs/docs/sw/curriculum/RRPart0305.pdf>

United States Environmental Protection Agency. (2003). *Recycle City: Landfill*. Retrieved May 28, 2008 from <http://www.epa.gov/recyclecity/landfill.htm#New>

### **Lesson 3 – My Landfill is Sanitary**

Oregon Department of Environmental Quality. (2001). *Lesson 05: Making A Model Landfill*. Retrieved May 28, 2008 from <http://www.deq.state.or.us/lq/pubs/docs/sw/curriculum/RRPart0305.pdf>

United States Environmental Protection Agency. (2003). *Recycle City: Landfill*. Retrieved May 28, 2008 from <http://www.epa.gov/recyclecity/landfill.htm#New>

### **Lesson 4 – How Long Does Trash Last?**

Hopkins, Gary. (2003). *How Long Does Trash Last? (A Cooperative Learning Activity)*. Retrieved April 8, 2008 from [http://www.educationworld.com/a\\_lesson/03/lp308-04.shtml](http://www.educationworld.com/a_lesson/03/lp308-04.shtml)

Rathje, W. L., & Murphy, C. (1992). *Rubbish!: the archaeology of garbage*. New York, NY: HarperCollins.

### **Lesson 5 – Potato Chip Dilemma**

American Plastics Council. (1993). *The Potato Chip Dilemma: A Lesson About Source Reduction. 4 Classroom Activities on Plastics and Solid Waste Management*. 11-13.

### **Lesson 6 – Play It Again, Sam**

Wong, Janet S. (2007). *The Dumpster Diver*. Cambridge: Candlewick.

Candlewick Press. (2007). *The Dumpster Diver: An Activity Guide*. Retrieved April 9, 2008, from [http://www.candlewick.com/book\\_files/0763623806.mis.1.pdf](http://www.candlewick.com/book_files/0763623806.mis.1.pdf)

### **Lesson 7 – Warhol Waste**

No works referenced for this lesson.

### **Lesson 8 – Warhol Waste**

Discovery Education. (2007). *Discovery Education's Puzzlemaker*. Retrieved May 29, 2008 from <http://puzzlemaker.discoveryeducation.com/>